Background to Water

What is happening in Oxfordshire now

Water is a precious resource. The South East of England, and Oxfordshire in particular, are water stressed. Our water resources are coming under increasing pressure from population growth and climate change. Society also expects that water will be available for all users all the time. These factors contribute to periodic demands for more reservoirs to be built, but this is not necessarily the best solution. Water cannot be thought of as just water supply; it also involves biodiversity, nature conservation, wildlife etc, and we should take care when extracting and using water. A key element is water retention in a landscape.

The main water-related problems affecting Oxfordshire are:

- Flooding: Oxford and the Thames valley have always been prone to flooding, but floods causing damage to property and great disruption are becoming more frequent, as in December 2020. More intense and frequent rainfall will continue as climate change heats our oceans.
- Water stress and over-abstraction – the South East of England is one of the most water-stressed parts of the United Kingdom. Over-abstraction has meant the death of many of England's precious chalk streams. The Environment Agency has warned of catastrophic water shortages within 25 years as a result of climate change, inappropriate water usage and population growth in our most water-stressed regions. https://www.theguardian.com/environment/2019/mar/18/england-to-run-short-of-water-within-25-years-environment-agency
- Pollution of rivers caused by overuse of pesticides and nitrate/nitrite fertilisers in agriculture, road run-off and discharges of raw sewage into rivers. These are harmful to aquatic life, present a danger to river users and contaminate ground water. According to a recent Food and Agriculture Organisation study, the most common chemical contaminant found in groundwater aquifers is nitrate from farming.
- Water wastage through old, leaking infrastructure (often underground). One third of water is lost through leaks and wastage. The poor state of our privately owned water and sewerage infrastructure must be addressed as a matter of national priority.
- Low river levels in summer as a result of a high degree of extraction – which concentrates pollutants present and impacts on biodiversity. England's chalk streams, the "rainforests" of our country, have been over-abstracted to the point of extinction. https://greenallianceblog.org.uk/2020/10/27/chalk-streams-are-englands-rainforests-and-they-need-help-fast/
- Poor soil quality and compaction through agricultural techniques meaning that water runs off land and straight into rivers rather than being absorbed by the soil, thus contributing to flooding.

What the Green Party needs to do

- Demand that the UK's environmental and water standards do not fall behind those of the EU post-Brexit.
- Use the planning system to fight overdevelopment, and certainly not allow building on flood plains; covering land in concrete makes flooding inevitable. Push for better water policies in building regulations and National Planning Policy.

- Encourage natural flood prevention measures such as tree planting and allowing rivers to spread into surrounding land that then becomes wetland. Such measures also greatly improve water quality and biodiversity. An example is the Evenlode Catchment Partnership.
- Work with farmers and landowners to use regenerative/agroecological farming methods to keep soil healthy and full of soil organisms. Healthy soil absorbs huge amounts of water, as well as allowing plants to grow healthily, and they in turn store a lot of water. Soil degraded by pesticides, herbicides etc and compacted by heavy farm machinery doesn't. Switching agriculture to carbon-sequestering, biodiverse and regenerative methods can increase the rate at which soil soaks up rainfall a hundred-fold, and each 1% increase in organic matter (carbon) in the soil holds 20,000 gallons more water per acre. Also, agricultural land is the main source of nitrates, where nitrogen fertiliser use is in excess of crop requirements, or where nitrogen in animal manures, sewage sludge or other organic wastes is applied at excessive rates.
- Make Thames Water invest more of its large profits in renewing infrastructure and encourage OFWAT to require this of Thames Water.
- Call on Thames Water to provide accurate, real-time information on all sewage discharges to the public and encourage OFWAT to pursue Thames Water on this subject in the framework of their regulatory powers. Thames Water has data monitors installed on most, if not all, of its sewage plants. Transparency is the first step to accountability.
- Work with local communities to support applications to DEFRA for Bathing Quality Water status. BQW status is applied for by local authorities. Oxford City has begun the process of applying for BQW status – there are many other stretches of the Thames where this legislation could work to improve water quality.
- Advocate the inclusion of domestic water-saving methods in national planning policy and building regulations. These measures include the installation of water meters, tap aerators and low-flush/dual flush toilets. Require grey water recycling and water butts in new homes. Installing a water butt outside the home provides rainwater for gardening or cleaning the car. It is also worth making frequent checks on pipework and taps to reduce the chances of an unexpected and costly leak. According to the Energy Saving Trust, a dripping tap can waste over 5,000 litres of water annually. Surface water and waste water should not mix – surface water runoff should not be channelled into waste water pipes.
- Call for the Environment Agency to be robust and properly funded – EA funding has been slashed by half over the past 10 years. Its record on enforcement has been patchy at best.

The water industry

All water suppliers are private companies. Thames Water (an international company) supplies all domestic water in Oxfordshire, while Castle Water supplies many businesses. Thames Water is also responsible for managing the infrastructure and treating waste water. The regional water authorities are overseen by OFWAT.

Water is used mainly for: public water supply, agriculture (includes irrigation and fish farming), industry, electricity generation (e.g. Sandford Hydro).

Thames Water is responsible for:

- Reservoirs: water supply, water sports, biodiversity etc.
- General consumption: domestic use, drinking fountains; 65% of our drinking water comes from rivers, while the rest comes from groundwater. The use of pesticides and fertilisers affects water quality; they have to be extracted to produce drinking water.
- Education: working with farmers and agronomists in high-risk areas,

- Water processing: managing pesticides and nitrates and sewage; the biogas created in treatment is used to power many Thames water sites. Treated wastewater is returned as clean water back to the environment.
- Climate change: impacting the environment as little as possible, recycling wastewater, producing renewable energy.

Thames Water's performance record is not good. It appears to be improving, but there are still too many discharges of untreated sewage (a certain number are allowed during heavy rainfall, but this is often exceeded). Leakage is showing signs of improvement, but this was from a low base. Thames Water's business plan seeks to address these shortcomings, and delivery of the plan is essential, monitored by the Thames Water Customer Challenge Group.

https://www.thameswater.co.uk/media-library/home/about-us/performance/our-customer-challenge-group/performance-reports/ccg-commentary-on-performance-commitments-2019-20.pdf

Some other organisations

Thames Rivers Trust: https://www.thamesriverstrust.org.uk/
The Thames Rivers Trust is a registered environmental charity dedicated to improving the River Thames and its tributaries for the benefit of people, wildlife and the environment. Its aim is to deliver an integrated approach to the management of the Thames and the surrounding land.
https://www.thamesriverstrust.org.uk/wp-content/uploads/2017/07/EvenlodeCaseStudy_170717.pdf

Wild Oxfordshire: River Catchments: https://www.wildoxfordshire.org.uk/biodiversity/river-catchments/
Each of Oxfordshire's six river catchment areas works with local partners to deliver wildlife and water benefits through identifying work and finding funding.

Windrush Against Sewage Pollution: https://www.windrushwasp.org/
With low standards, low control, a history of negligence and non-compliance and outdated sewage treatment we have legalised dumping of untreated sewage in our rivers. The Greens nationally and locally must challenge all these situations to clean our rivers.

Beaver Trust: https://beavertrust.org/
Beavers are ecosystem engineers: they build series of dams that filter out pollutants, reduce flooding, store water in pools for times of drought, and attract a huge host of other wildlife. They also bring challenges – they will change our rivers and landscapes, and this can disrupt existing land use, but there's a lot of interest now in their work in natural flood prevention as well as encouraging biodiversity. There are rumours of plans to release beavers on the River Glyme.